WHAT IS CLAIMED IS:

1. An image processing system in which first and second image processing apparatuses are connected via a serial bus,

wherein said first image processing apparatus comprises control means for controlling distribution of image processing between said two apparatuses on the basis of performance of said first image processing apparatus and performance of said second image processing apparatus.

2. The system according to claim 1, wherein

said first and second image processing apparatuses can commonly execute a plurality of image processes, and

said control means distributes the plurality of image processes to said first and second image processing apparatuses.

3. The system according to clam 2, wherein when said first image processing apparatus has higher performance, said control means distributes many image processes to said first image processing apparatus.

4. The system according to claim 3, wherein said control means acquires apparatus information of said second image processing apparatus via said serial bus, and controls distribution of image processing in said first and second image processing apparatuses on the

basis of the apparatus information.

5. The system according to claim 4, wherein the apparatus information contains performance information of said second image processing apparatus.

6. The system according to claim 5, wherein said control means calculates a time required for each image process in each of said first and second image processing apparatuses, and controls distribution of image processing in said first and second image processing apparatuses so as to minimize a total processing time of the image processes.

7. The system according to claim 1, wherein

said second image processing apparatus also comprises control means for controlling distribution of image processing, similar to said first image processing apparatus, and

said control means of said first and second image processing apparatuses determine which of said control means controls distribution of image processing.

8. The system according to claim 7, wherein each control means determines that an apparatus exhibiting higher performance controls distribution of image processing.

9. The system according to claim 1, wherein

said first image processing apparatus is an image input apparatus for inputting image data, and

said second image processing apparatus is an image output apparatus for outputting the image data transferred from said image input apparatus via said serial bus.

10. The system according to claim 1, wherein

said second image processing apparatus is an image input apparatus for inputting image data, and

said first image processing apparatus is an image output apparatus for outputting the image data transferred from said image input apparatus via said serial bus.

11. The system according to claim 1, wherein the image data is isochronously transferred.

12. The system according to claim 1, wherein said serial bus is a bus compatible or complying with the IEEE 1394 standard.

13. The system according to claim 1, wherein said serial bus is a bus compatible or complying with the USB standard.

14. An image processing apparatus connected to another image processing apparatus via a serial bus, comprising:

detection means for detecting performance of said another image processing apparatus;

determination means for determining optimal distribution of image processing between said apparatus

and said another image processing apparatus on the basis of a detection result; and

image processing means for performing image processing on the basis of a determination result.

15. An image processing apparatus connected to another image processing apparatus via a serial bus, comprising:

notification means for notifying said another image processing apparatus of performance of said apparatus;

reception means for receiving distribution of image processing determined in said another image processing apparatus; and

image processing means for performing image processing on the basis of the received distribution of image processing.

16. A control method of an image processing system in which first and second image processing apparatuses are connected via a serial bus, comprising the step of:

in the first image processing apparatus, controlling distribution of image processing between the two apparatuses on the basis of performance of the first image processing apparatus and performance of the second image processing apparatus.

17. A recording medium which records a control program of an image processing system in which first

and second image processing apparatuses are connected via a serial bus, wherein the program comprises at least:

a code of controlling, in the first image processing apparatus, distribution of image processing between the two apparatuses on the basis of performance of the first image processing apparatus and performance of the second image processing apparatus.

18. An image processing system in which first and second image processing apparatuses are connected via a serial bus,

wherein said first and second image processing apparatuses respectively comprise first and second control means for controlling distribution of image processing between said two apparatuses, and determine which of said first and second control means acquires control.

19. The system according to claim 18, wherein the control is determined to be given to an apparatus exhibiting higher performance.

20. The system according to claim 18, wherein

said first and second image processing apparatuses can commonly execute a plurality of image processes, and

said first and second control means distribute the plurality of image processes to said first and

second image processing apparatuses.

21. The system according to clam 20, wherein when said first image processing apparatus has higher performance, said first and second control means distribute many image processes to said first image processing apparatus.

22. The system according to claim 21, wherein said first and second control means acquire pieces of apparatus information of partner apparatuses via said serial bus, and control distribution of image processing in said first and second image processing apparatuses on the basis of the pieces of apparatus information.

23. The system according to claim 22, wherein the pieces of apparatus information contain pieces of performance information of the partner apparatuses.

24. The system according to claim 23, wherein said first and second control means calculate a time required for each image process in each of said first and second image processing apparatuses, and control distribution of image processing in said first and second image processing apparatuses so as to minimize a total processing time of the image processes.

25. The system according to claim 18, wherein connection IDs are uniquely determined every time said first and second image processing apparatuses are

connected to the system, and

which of said first and second control means acquires the control is determined based on the connection IDs.

26. The system according to claim 18, wherein

said first image processing apparatus is an image input apparatus for inputting image data, and

said second image processing apparatus is an image output apparatus for outputting the image data transferred from said image input apparatus via said serial bus.

27. The system according to claim 26, wherein the image data is isochronously transferred.

28. An image processing system in which first and second image processing apparatuses are connected via a serial bus, wherein

image data processed in said first image processing apparatus is stored in storage means under management of said serial bus, and

said second image processing apparatus selects either of the image data stored in said storage means and image data processed by said second image processing apparatus.

29. The system according to claim 28, wherein said storage means is incorporated in said first image processing apparatus.

30. The system according to claim 28, wherein said storage means is incorporated in said second image processing apparatus.

31. The system according to claim 28, wherein said serial bus is a bus compatible or complying with the IEEE 1394 standard.

32. The system according to claim 28, wherein said serial bus is a bus compatible or complying with the USB standard.

33. An image processing apparatus connected to another image processing apparatus via a serial bus, comprising:

control means for controlling distribution of image processing between said apparatus and said another image processing apparatus; and

determination means for determining whether distribution of image processing is controlled by said control means or said another image processing apparatus.

34. A control method of an image processing system in which first and second image processing apparatuses are connected via a serial bus, wherein

the first and second image processing apparatuses respectively comprise first and second control means for controlling distribution of image processing between the two apparatuses, and determine which of the

first and second control means acquires control.

35. A control method of an image processing system in which first and second image processing apparatuses are connected via a serial bus, wherein

image data processed in the first image processing apparatus is stored in storage means under management of said serial bus, and

the second image processing apparatus selects either of the image data stored in the storage means and image data processed by the second image processing apparatus.

36. A recording medium which records a control program of an image processing system in which first and second image processing apparatuses having first and second control means for controlling distribution of image processing between the apparatuses are connected via a serial bus, wherein the program comprises at least:

a code of determining which of the first and second control means acquires control.

37. A recording medium which records a control program of an image processing system in which first and second image processing apparatuses are connected via a serial bus, wherein the program comprises at least:

a code of storing image data processed in the

first image processing apparatus in storage means under management of said serial bus, and

a code of causing the second image processing apparatus to select either of the image data stored in the storage means and image data processed by the second image processing apparatus.

38. An image processing system in which an image input apparatus and an image output apparatus are connected via a serial bus, wherein

said image input apparatus comprises:

input means for inputting image data of a first format;

determination means for determining whether to convert the image data of the first format into a second format;

first conversion means for converting the image data of the first format into the second format on the basis of a determination result; and

first communication means for transmitting the image data of the first or second format to said image output apparatus, and

said image output apparatus comprises:

second communication means for receiving the image data transferred from said image input apparatus;

holding means for temporarily holding the received image data in a buffer having a predetermined

capacity;

second conversion means for, if the image data held in the buffer has the first format, converting the image data into the second format; and

output means for sequentially outputting the image data of the second format.

39. The system according to claim 38, wherein the first format is a compressed data format, and the second format is a data format obtained by decompressing image data of the first format.

40. The system according to claim 39, wherein the first format is a JPEG format.

41. The system according to claim 38, wherein said determination means in said image input apparatus determines whether to convert a format of the image data on the basis of an empty state of the buffer in said image output apparatus.

42. The system according to claim 41, wherein said determination means determines to convert the format of the image data when the buffer is full.

43. The system according to claim 42, wherein said determination means determines to convert the format of the image data when said serial bus is detected to be busy in said first communication means.

44. The system according to claim 42, wherein said second communication means notifies said

image input apparatus of buffer information representing the empty state of the buffer, and

said determination means determines whether to convert the format of the image data on the basis of the buffer information.

45. The system according to claim 44, wherein

said second communication means issues an image data format conversion request to said image input apparatus on the basis of the empty state of the buffer, and

when the format conversion request is received, said determination means determines to convert the format of the image data.

46. The system according to claim 45, wherein said second communication means issues the format conversion request when the buffer is full.

47. The system according to claim 38, wherein

said determination means determines in units of predetermined blocks whether to convert a format of the image data, and

each of said conversion means converts the image data of the first format into the second format for all blocks after a block said determination means determines to convert.

48. The system according to claim 38, wherein

said determination means determines in units of

predetermined blocks whether to convert a format of the image data, and

each of said conversion means converts the image data of the first format into the second format for only a block said determination means determines to convert.

49. The system according to claim 47, wherein said determination means determines not to convert the format of the image data for a first block in the image data.

50. The system according to claim 47, wherein said image input apparatus further comprises:

decision means for comparing performance of said first conversion means with performance of said second conversion means for a first block in the image data, and deciding to perform conversion processing by conversion means exhibiting higher performance.

51. The system according to claim 38, wherein said serial bus is a bus compatible or complying with the IEEE 1394 standard.

52. The system according to claim 38, wherein said serial bus is a bus compatible or complying with the USB standard.

53. An image processing apparatus connected to another image processing apparatus via a serial bus, comprising:

input means for inputting image data of a first format;

determination means for determining whether to convert the image data of the first format into a second format;

conversion means for converting the image data of the first format into the second format on the basis of a determination result; and

communication means for transmitting the image data of the first or second format to said another image processing apparatus.

54. An image processing apparatus connected to another image processing apparatus via a serial bus, comprising:

communication means for receiving image data transferred from said another image processing apparatus;

holding means for temporarily holding the received image data in a buffer having a predetermined capacity;

conversion means for, if the image data held in the buffer has the first format, converting the image data into the second format; and

output means for sequentially outputting the image data of the second format.

55. A control method of an image processing system in

which an image input apparatus and an image output apparatus are connected via a serial bus, comprising:

in the image input apparatus,

the input step of inputting image data of a first format;

the determination step of determining whether to convert the image data of the first format into a second format;

the first conversion step of converting the image data of the first format into the second format on the basis of a determination result; and

the transmission step of transmitting the image data of the first or second format to the image output apparatus, and

in the image output apparatus,

the reception step of receiving the image data transferred from the image input apparatus;

the holding step of temporarily holding the received image data in a buffer having a predetermined capacity;

the second conversion step of, if the image data held in the buffer has the first format, converting the image data into the second format; and

the output step of sequentially outputting the image data of the second format.

56. The method according to claim 55, wherein the

first format is a compressed data format, and the second format is a data format obtained by decompressing image data of the first format.

57. The method according to claim 55, wherein the determination step comprises the step of determining whether to convert a format of the image data on the basis of an empty state of the buffer in the image output apparatus.

58. A recording medium which records a control program of an image processing system in which an image input apparatus and an image output apparatus are connected via a serial bus, wherein the control program comprises at least:

in the image input apparatus,

a code of the input step of inputting image data of a first format;

a code of the determination step of determining whether to convert the image data of the first format into a second format;

a code of the first conversion step of converting the image data of the first format into the second format on the basis of a determination result; and

a code of the transmission step of transmitting the image data of the first or second format to the image output apparatus, and

in the image output apparatus,

a code of the reception step of receiving the image data transferred from the image input apparatus;

a code of the holding step of temporarily holding the received image data in a buffer having a predetermined capacity;

a code of the second conversion step of, if the image data held in the buffer has the first format, converting the image data into the second format; and

a code of the output step of sequentially outputting the image data of the second format.